

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: DRAFT

Region: Asheville Regional Office
County: Haywood
NC Facility ID: 4400159
Inspector's Name: Brendan Davey
Date of Last Inspection: 10/24/2019
Compliance Code: B / Violation - emissions

<p align="center">Facility Data</p> <p>Applicant (Facility's Name): Blue Ridge Paper Products LLC</p> <p>Facility Address: Blue Ridge Paper Products LLC 175 Main Street Canton, NC 28716</p> <p>SIC: 2621 / Paper Mills Exc Building Paper NAICS: 322121 / Paper (except Newsprint) Mills</p> <p>Facility Classification: Before: Title V After: Fee Classification: Before: Title V After:</p>				<p align="center">Permit Applicability (this application only)</p> <p>SIP: NSPS: NESHAP: MACT DDDDD, MM PSD: PSD Avoidance: NC Toxics: 112(r): Other:</p>																																																			
<p align="center">Contact Data</p> <table border="1"> <tr> <td> <p align="center">Facility Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p> </td> <td> <p align="center">Authorized Contact</p> <p>Wallace McDonald General Manager (828) 646-2840 175 Main Street Canton, NC 28716</p> </td> <td> <p align="center">Technical Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p> </td> </tr> </table>				<p align="center">Facility Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p>	<p align="center">Authorized Contact</p> <p>Wallace McDonald General Manager (828) 646-2840 175 Main Street Canton, NC 28716</p>	<p align="center">Technical Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p>	<p align="center">Application Data</p> <p>Application Number: 4400159.18G Date Received: 05/29/2018 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part II Existing Permit Data Existing Permit Number: 08961/T27 Existing Permit Issue Date: 01/10/2020 Existing Permit Expiration Date: 10/31/2021</p>																																																
<p align="center">Facility Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p>	<p align="center">Authorized Contact</p> <p>Wallace McDonald General Manager (828) 646-2840 175 Main Street Canton, NC 28716</p>	<p align="center">Technical Contact</p> <p>Dan Meyer Environmental Manager (828) 646-2945 175 Main Street Canton, NC 28716</p>																																																					
<p>Total Actual emissions in TONS/YEAR:</p> <table border="1"> <thead> <tr> <th>CY</th> <th>SO2</th> <th>NOX</th> <th>VOC</th> <th>CO</th> <th>PM10</th> <th>Total HAP</th> <th>Largest HAP</th> </tr> </thead> <tbody> <tr> <td align="center">2018</td> <td align="center">4494.78</td> <td align="center">3006.74</td> <td align="center">1637.84</td> <td align="center">1632.69</td> <td align="center">499.04</td> <td align="center">840.00</td> <td align="center">616.31 [Methanol (methyl alcohol)]</td> </tr> <tr> <td align="center">2017</td> <td align="center">5875.43</td> <td align="center">3418.59</td> <td align="center">1420.30</td> <td align="center">1830.70</td> <td align="center">558.09</td> <td align="center">823.95</td> <td align="center">624.44 [Methanol (methyl alcohol)]</td> </tr> <tr> <td align="center">2016</td> <td align="center">7195.93</td> <td align="center">4224.22</td> <td align="center">1377.79</td> <td align="center">1500.32</td> <td align="center">675.70</td> <td align="center">861.11</td> <td align="center">606.17 [Methanol (methyl alcohol)]</td> </tr> <tr> <td align="center">2015</td> <td align="center">7810.81</td> <td align="center">4325.84</td> <td align="center">1400.35</td> <td align="center">1549.11</td> <td align="center">711.16</td> <td align="center">798.89</td> <td align="center">599.37 [Methanol (methyl alcohol)]</td> </tr> <tr> <td align="center">2014</td> <td align="center">7593.86</td> <td align="center">4344.54</td> <td align="center">1481.26</td> <td align="center">2922.19</td> <td align="center">728.55</td> <td align="center">818.32</td> <td align="center">610.26 [Methanol (methyl alcohol)]</td> </tr> </tbody> </table>								CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP	2018	4494.78	3006.74	1637.84	1632.69	499.04	840.00	616.31 [Methanol (methyl alcohol)]	2017	5875.43	3418.59	1420.30	1830.70	558.09	823.95	624.44 [Methanol (methyl alcohol)]	2016	7195.93	4224.22	1377.79	1500.32	675.70	861.11	606.17 [Methanol (methyl alcohol)]	2015	7810.81	4325.84	1400.35	1549.11	711.16	798.89	599.37 [Methanol (methyl alcohol)]	2014	7593.86	4344.54	1481.26	2922.19	728.55	818.32	610.26 [Methanol (methyl alcohol)]
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP																																																
2018	4494.78	3006.74	1637.84	1632.69	499.04	840.00	616.31 [Methanol (methyl alcohol)]																																																
2017	5875.43	3418.59	1420.30	1830.70	558.09	823.95	624.44 [Methanol (methyl alcohol)]																																																
2016	7195.93	4224.22	1377.79	1500.32	675.70	861.11	606.17 [Methanol (methyl alcohol)]																																																
2015	7810.81	4325.84	1400.35	1549.11	711.16	798.89	599.37 [Methanol (methyl alcohol)]																																																
2014	7593.86	4344.54	1481.26	2922.19	728.55	818.32	610.26 [Methanol (methyl alcohol)]																																																
<p>Review Engineer: Jenny Sheppard</p> <p>Review Engineer's Signature: _____ Date: DRAFT</p>				<p align="center">Comments / Recommendations:</p> <p>Issue 08961/T28 Permit Issue Date: DRAFT Permit Expiration Date: DRAFT</p>																																																			

I. Purpose of Application

Blue Ridge Paper Products LLC (BRP) currently holds Title V Permit No. 008961T27 with an expiration date of October 31, 2021 for operates an integrated kraft pulp and paper mill facility located in Canton, Haywood County, North Carolina. The following permitting actions will be addressed:

- Permit Application No. 4400159.18G, received May 29, 2018. The purpose of this permit application is the second step of a two-step significant modification. Permit Application No. 4400159.16A, was submitted on January 19, 2016 for their planned Repowering Project,
- Incorporate MACT DDDDD for the boilers and remove 112(j)
- Update language for Subpart MM
- Moved two natural gas and/or propane hot oil heaters to the insignificant activities list (potential emissions less than 5 tons)
- Incorporated minor modification request (application 4400159.20A) to revise the “Minimum Scrubber Liquid pH” parameter limit specified in Table 2.2 J.2. of the permit.

II. Permit Modifications

Table 1 summarizes the changes to Air Quality Permit No. 08961T27, issued January 10, 2020.

Table 1. Summary of Changes to Permit

Page No.	Section	Description of Change
Cover letter		Amended application type, permit revision numbers and dates.
Cover letter attachment	Summary of changes to permit	Updated for current permit modifications.
1	Permit cover page	Updated permit revision number and permit issuance date
All	All	Update permit number, removed “Subpart” from NESHAP and NSPS designations in the Insignificant Activities list, equipment table and TVEE.
Update after review	Section 1	Added MACT DDDDD and removed Case By Case MACT for emission sources G11037, G11038, G11039, G11040, and G11042.
	Section 2.1 T	Replaced Case By Case MACT rule reference with MACT DDDDD (2.2 E)
	Section 2.1 U	Replaced Case By Case MACT rule reference with MACT DDDDD (2.2 E)
	Section 2.1 V	Replaced Case By Case MACT rule reference with MACT DDDDD (2.2 E)
	Section 2.2. A.5	Correct formatting and table
	Section 2.2.D	Updated Subpart MM condition
	Section 2.2.E 2	Remove 112(j) Case By Case requirements and added MACT DDDDD requirements
	Section 2.2 J	Corrected condition and updated Table 2.2 J.2 to reflect the new minimum scrubber pH based on a recent stack test and approved by DAQ in the 01/13/2020 memo.

As discussed above, this permit application is the second step of a two-step significant modification. Permit Application No. 4400159.18G, was submitted on May 29, 2018, to add Nos. 1 and 2 Package boilers (ID Nos. 11050 and 11051), to rebuild ESPs and scrubbers (ID Nos. 11-CD-005-01, 11-CD-006-01, 11-CD-005-02, and 11-CD-006-03) installed on Riley Coal Boiler and the No. 4 Power Boiler (ID Nos. G11039 and 11040), and install scrubbers on the Riley Coal Boiler and . Permit No. 08961T18 was issued on March 29, 2016. As part of the Two-Step Significant modification procedures, the facility is required to submit an application on or before 12 months after commencing operation. Therefore, Permit Application No. 4400159.18G satisfies this requirement.

The minor modification to update minimum scrubber pH (Table 2.2 J.2) for the venturi-type wet scrubber (ID No. 11-CD-016-02) Permit Application No. 4400159.20A will also be incorporated into this modification. The minimum pH for the venturi-type wet scrubber installed on the Riley Bark Boiler (ID No. G11042) will be updated to 6.1.

III. Regulatory Review

MACT DDDDD

As discussed above, the Riley Coal, Riley Bark, and No. 4 Power Boilers are currently subject to Case-by-Case MACT under 112(j). The 112(j) requirements expired on May 19, 2019, at which time the Boiler MACT standards under 40 CFR Part 63, Subpart DDDDD apply. Since the next renewal will be in 2021, the Boiler MACT requirements are being added to the permit prior to renewal. As of this permit issuance, the Boiler MACT is undergoing a reconsideration process. Once the amendments are finalized, it is recommended that the permit conditions be reviewed and revised as needed during the next significant modification.

Subpart DDDDD applies to new and existing boilers. A boiler is considered new if it was constructed or reconstructed after June 4, 2010. All three boilers were constructed prior to this date. As a result, the Riley Coal, Riley Bark, and No. 4 Power Boilers are considered existing sources under Subpart DDDDD. The following discussion summarizes the applicable requirements for existing these boilers.

The three boilers at the Blue Ridge Paper mill are all solid fuel-fired boilers. The Riley Coal and No. 4 Power Boilers are pulverized coal-fired boilers, capable of burning natural gas. The Riley Bark Boiler is a biomass boiler and DAQ previously approved the determination that the design and operation meet the definition of a hybrid suspension grate boiler.¹ Blue Ridge Paper has requested that the Riley Bark Boiler be permitted as a hybrid suspension grate boiler under Subpart DDDDD, which is defined as follows:

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire width and depth of the boiler combustion zone. The biomass fuel combusted in these units exceeds a moisture content of 40 percent on an as-fired annual heat input basis as demonstrated by monthly fuel analysis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Emission Standards. The boilers are subject to emission standards for hydrogen chloride (HCl), mercury (Hg), CO, and Filterable PM (or total suspended metals, TSM). Subpart DDDDD includes compliance options for boilers:

- Comply with an alternative TSM limit instead of the PM limit;
- Comply with an output-based limit instead of an input-based limit;
- Comply with alternate CO CEMS-based limit instead of CO stack-based limit;
- Comply with Hg, HCl, and/or TSM limits by fuel analysis instead of performance stack tests;
- Comply by emissions averaging; and
- Earn efficiency credits from implementation of energy conservation measures to comply with output based-limits.

The Boiler MACT condition provides an option for complying with the Hg, HCl, and TSM limits by fuel analysis instead of performance testing. Blue Ridge Paper is going to comply with the Filterable PM limit, instead of the TSM limit. For the Riley Coal and No. 4 Power Boilers, Blue Ridge Paper is installing an Hg CEMS to demonstrate compliance with the applicable Hg emission limits. Blue Ridge Paper has indicated that they are intending to comply with the fuel analysis option for compliance with the HCl limits for all three boilers and for the Hg limit for the Riley Bark Boiler. For operational flexibility, the permit includes both testing and fuel analysis options. Blue Ridge Paper will not be installing CO CEMS and will comply with the CO stack-based limit. The emission limits in the permit will be in terms of heat input (lb/MMBtu). Although not included in detail in the permit, the option to comply using emissions averaging and efficiency credit options is allowed by Subpart DDDDD.

Work Practice Standards. The three boilers are also subject to work practice standards under Subpart DDDDD. The boilers will be required to conduct periodic boiler tune-ups. Boilers without oxygen trim systems will have to be tuned-up every year (not more than 13 months after the previous tune-up). The Riley Coal and No. 4 Power Boilers will be equipped with an oxygen trim system and will have to conduct tune-ups once every five years. Tune-ups for the Riley Bark Boiler will be required annually. The first tune-ups for all three boilers were required on or before the compliance date of May 20, 2019. Blue Ridge Paper was required to perform a one-time energy assessment on each boiler no later than the May 20th compliance date. This assessment was conducted in 2016 and was approved. Compliance with the work practice standards will be demonstrated by records documenting the boiler tune-ups and the energy assessment.

Subpart DDDDD also requires work practice standards during startups and shutdowns. Startup work practice requirements include the use of clean fuels during startup periods and provide options dependent on which definition of “startup” the mill chooses. During shutdowns, Subpart DDDDD requires the use of all continuous monitoring systems and specifies how emissions are to be controlled and which supplemental fuels, if necessary, can be used to support the shutdown process. Monitoring data must be collected during periods of startup and shutdown. Blue Ridge Paper is required to keep records during periods of startup and shutdown and submit reports concerning activities and periods of startup.

Notification, Recordkeeping and Reporting Requirements: Blue Ridge Paper will be required to submit notifications of performance tests and performance evaluations. Blue Ridge Paper will also be required to maintain records of fuel usage and records associated with demonstration of compliance with the work practice standards. Recordkeeping and reporting are also required for boilers in this subcategory.

Subpart MM

Amendments to the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills under 40 CFR Part 63 (Subpart MM) only affects sources subject to Subpart MM. On October 11, 2017, EPA published final amendments to subpart MM. The following discussion summarizes the amendments and the permit was modified to reflect the amended regulation.

Changes due to technology review

EPA conducted a technology review and determined that there were developments in practices, processes, and control technologies that warranted revisions Subpart MM. The following describes how Subpart MM revisions impact the sources at the Blue Ridge Paper mill.

- The opacity monitoring allowance for the Nos. 10 and 11 Recovery Furnaces was revised from 6 percent to 2 percent; and
- Blue Ridge Paper is required to maintain proper operation of the Nos. 10 and 11 Recovery Furnaces wet ESP automatic voltage control (AVC).

Changes to address emissions during periods of startup, shutdown and malfunction

The Subpart MM amendments eliminated the startup, shutdown, and malfunction (SSM) exemption and the Subpart MM standards apply at all times. EPA revised Table 1 to Subpart MM of Part 63 (General Provisions

applicability table) to change several references related to requirements that apply during periods of SSM. EPA eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption, including the requirement for an SSM plan. EPA also made changes to the rule to remove or modify language that is no longer applicable due to the removal of the SSM exemption. With the amendments to the Subpart MM monitoring requirements described above, EPA determined that pulp and paper facilities can meet the applicable Subpart MM emissions standards at all times, including periods of startup and shutdown and did not include additional standards to address emissions during these periods.

The Subpart MM monitoring requirements were adjusted to ensure that continuous compliance can feasibly be demonstrated during periods of startup and shutdown. Subpart MM requires continuous opacity monitoring to indicate ongoing compliance with the PM emission limits. EPA removed the requirement to consider wet scrubber pressure drop during startup and shutdown because pressure drop is dependent on gas flow, which is transient (changing) during startup and shutdown. Therefore, continuous compliance is based on scrubber liquid flow rate monitoring during startup and shutdown instead of both pressure drop and liquid flow rate. EPA also limited the times when corrective actions are implemented, or violations are recorded to times when spent pulping liquor or lime mud is fed (as applicable). The final rule specifies that corrective action can include completion of transient startup and shutdown conditions as expediently as possible.

Other Changes to the NESHAP

Other changes to the NESHAP that do not fall into the categories in the previous sections include:

- Requiring periodic air emissions performance testing, with the first of the tests to be conducted no later than October 31, 2020, and thereafter no longer than 5 years following the previous performance test;
- Specifying procedures for establishing operating limits based on data recorded by CPMS, including the frequency for recording parameters and the averaging period for reducing the recorded readings;
- Reducing the frequency for submitting excess emissions reports from quarterly to semiannually in conjunction with requiring electronic reporting of excess emissions;
- Requiring the submission of electronic copies of performance test reports;
- Requiring the submission of initial notifications and notifications of compliance status electronically; and
- Various technical and editorial corrections.

The compliance date for the Subpart MM amendments is October 11, 2019. This permitting action incorporating the Subpart MM amendments will be issued after that date. Additionally, the current permit (T26) contains 112(j) conditions to address SSM for the Subpart MM affected sources. Because the Subpart MM amendments will be in effect, the 112(j) conditions will no longer be applicable and were removed.

Facility-wide SO₂ Emission Sources

Update minimum scrubber pH of the venturi-type wet scrubber (ID No. 11-CD-016-02) installed on the Riley Bark Boiler (ID No. G11042) from 6.9 to 6.1 in Table 2.2 J.2 based on a recent approved test.

IV. Facility Compliance Status/Compliance History:

DAQ has reviewed the compliance status of this facility with respect to its Title V Air Permit. Due to its size and complexity, the Blue Ridge Paper mill is inspected in phases. The most recent inspection of the facility was conducted on November 1, 2019, by Mr. Brendan Davey with the Asheville Regional Office (ARO). According to the inspection report, the following is a five-year compliance history.

- On December 09, 2016, Blue Ridge Paper was issued an NOV/NRE for violation of 15A NCAC 02Q .0508 – Permit Content. This violation was resolved on December 9, 2016.
- On March 14, 2017, Blue Ridge Paper was issued an NOV/NRE for a late Permit Report (excluding annual compliance certification). This violation was resolved on March 17, 2017.
- On March 14, 2017, Blue Ridge Paper was issued an NOV for failing to conduct required daily visual inspection of the flyash handling bagfilter systems. This violation was resolved on 04/17/2017.
- On March 14, 2017, Blue Ridge Paper was issued an NOV for exceeding toxic air pollutant permit limits and failure to submit a timely annual report. This violation was resolved on 04/07/2017.

- On March 14, 2017, Blue Ridge Paper was issued an NOV/NRE for violation of 15A NCAC 02D .0400 – Ambient Air Quality Standards. Resolution is being addressed via a special order of compliance (SOC) No. 2017-002 and is still pending.
- On October 9, 2018, Blue Ridge Paper was issued a NOV/NRE for failure to conduct the required annual internal inspection of a cartridge bagfilter under 15A NCAC 02D .0515 – Particulates from Miscellaneous Industrial Processes. This violation was resolved on 10/24/2018.
- On October 9, 2018, Blue Ridge Paper was issued an NOV/NRE for violation of General Condition F of Air Permit No. 08961T24. This violation was resolved on 10/24/2018.
- On October 22, 2019, Blue Ridge Paper was issued an NOV for violation of Part 63 – NESHAP/MACT Subpart DDDDD Industrial, Commercial, and Institutional Boilers and Process Heaters. Violation resolution date was November 14, 2019.

V. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above. The State of Virginia and the Forsyth County Local Program are affected state/local program within 50 miles of the facility.

The following comments were received: **Complete after comment period ends (No additional comments received.)**

VII. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this application.

A consistency determination was not required for the Part II application.

TO BE COMPLETED AFTER COMMENT PERIOD ENDS (ARO recommends issuance of the permit and was sent a DRAFT permit prior to issuance. Comments were received from the region (01/23/2020) and the facility (02/07/2020) prior to the notice period. All relevant comments were addressed in the draft permit prior to be sent to public notice RCO concurs with ARO's recommendation to issue the renewed air permit.)